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AMENDMENTS TO DRAWINGS

Please amend Fig. 5 by adding reference numerals 11, 20, 30, 40, 41, 44, 70, 71, and 73, as indicated in the attached REPLACEMENT SHEET.

REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Drawings, Specification, and Claims

Fig. 5 has been amended to include the missing reference numerals listed in item 1 on page 2 of the Official Action, thereby overcoming the objection under 37 CFR 1.84(p)(5). Since the content of the drawings and specification has not been changed, it is respectfully submitted that the addition of reference numerals is formal in nature and does not involve “new matter.”

The title has been amended in the manner suggested by the Examiner on page 2 of the Official Action, and the abstract has been re-written on a separate sheet and amended to be in proper U.S. format. These changes are clearly formal in nature and do not involve “new matter.”

Finally, the specification and claims have been amended to correct the error noted in item 2 on page 3 of the Official Action (by changing “(73)” to –(70)– as appropriate); to delete reference numeral (100), which was not included in the original drawings; and to correct minor grammatical errors. Again, the changes are clearly formal in nature and do not involve “new matter.”

Having thus overcome the objects to the drawings, specification, and claims listed on pages 2-3 of the Official Action, withdrawal of the objections is respectfully requested.

2. Rejection of Claims 1-7, 9, and 11-14 Under 35 USC §103(a) in view of U.S. Patent Nos. 5,668,917 (Lewine) and 4,602,297 (Reese)

This rejection is respectfully traversed on the grounds that the Lewine and Reese patents fail to disclose or suggest, whether considered individually or in any reasonable combination, the claimed method for receiving media signals in such a way as to remove unwanted signal components and *save* the remaining signal components, in which:

- repeated material (*i.e.*, the claimed “**common segment**”) is stored rather than deleted. The purpose of the methods of Lewine and Reese is to find and delete repeated segments such as commercials. This is exactly contrary to the invention recited in claim 1, which is to find and **store** repeated (**common**) **segments**, the repeated segments being songs that the listener desires to save. Instead of saving common segments and removing the rest, as in the claimed invention, Lewine removes unwanted material by **removing** repeated (**common**) **segments**, while Reese **removes** unwanted **material** based on detection of **transition frames** within certain time intervals.

According to the invention, a “search key representation” is initially chosen, either by the user or automatically, and the system then looks for another essentially identical “search key representation.” For example, the search key representation could be a song selected by the user, in which case the system looks for a repeat of the song. The two representations are then compared. In the absence of noise, voice-overs, commercials or other undesired signals, the representations should be identical. Therefore, the method of the invention keeps (stores) common segments from the two representations. These common segments represent portions of the original representation that are free of unwanted signal components, for example, noise and voice-over free portions of a song. The next time the song is played, the common segments will be different since noise and other unwanted signal components will tend to be different each time the song is played, allowing additional common segments to be stored until the entire song, minus unwanted signal components, will be saved. In other words, the invention stores common segments because the common segments represent portions of a desired song (or other “representation”) that is free from unwanted signal components.

In the method of Lewine, on the other hand, the goal is to **remove repeated or common segments**, because the common segments are taken to be commercials. Instead of the user selecting a search key representation (for example, in the present invention, the user might press a button when he/she hears a song on the radio that he/she wants to capture and save), Lewine’s method blindly looks for repeated segments and deletes them. In fact, Lewine only discusses

elimination of unwanted materials but never how to deal with wanted material (except for identification of opening sequences, col. 3, lines 23-25, which does not involve subsequent finding of common segments and recording or saving the common segments, as claimed).

According to Lewine, everything that is repeated is removed as unwanted material, regardless if the repeated material is a commercial or a repeated weather forecast, in which Lewine deletes the weather forecast until there is an updated weather forecast (col. 3, lines 9-15 and 27-32). Since Lewine removes everything that is repeated, Lewine will also *remove* rather than *save* any song, or piece of music, that is repeated in the broadcast, which is opposite the claimed invention whose purpose is to identify and save song segments (or segments of other “representations” such as talk shows) when noise-free (identical) segments of the song can be found. In other words:

–the claimed invention saves “common” segments and *removes the rest*—
whereas

–Lewine deletes common segments from a broadcast—.

By saving common segments, the claimed invention saves noise free segments of materials desired by the user (which will often be songs, but could even be commercials if the user finds commercials that he/she likes) while Lewine delete all repeated segments (including commercials, repeated news stories, and even songs). Both the claimed invention and the method of Lewine can remove commercials, but they do so in fundamentally different ways, with fundamentally different results.

The fundamental differences between the claimed invention and the method of **Lewine** are not made up for by the **Reese** patent, which teaches a method that is similar to that of Lewine in that it *removes* identified sequences. In Reese, the removed sequences are identified by looking for **transition frames** that appear between commercials and the program itself, and if two transition frames appear within a certain time limit, it is assumed that the material between the transition frames is a commercial and should not be recorded, as explained in the abstract and col. 2, lines 22-42 of the Reese patent. Reese’s teachings concerning identification of

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commercials based on transition frames could not possibly have suggested modification of Lewine's method of deleting all repeated segments in order to obtain the claimed method of storing common segments, and therefore withdrawal of the rejection of claims 1-7 and 9 under 35 USC §103(a) is respectfully requested (the rejection of claims 11-14 has been rendered moot by the cancellation of claims 11-14).

3. Rejections of Claims 8, 10, and 15 Under 35 USC §103(a) in view of U.S. Patent Nos. 5,668,917 (Lewine), 4,602,297 (Reese), and 5,696,866 (Iggulden)

These rejections are respectfully traversed on the grounds that the Iggulden patent, like the Lewine and Reese patents, fails to disclose or suggest a method for receiving media signals in which repeated material (*i.e.*, the claimed "common segment") is stored rather than deleted. Instead, the Iggulden patent discloses analysis of the timing of control marks to distinguish commercials from desired programs, and skipping of the thus identified commercials. There is no suggestion of storing common segments of a program, and in fact no attempt to identify such common segments, and therefore the Iggulden patent could not possibly have made up for the deficiencies of the Lewine and Reese patents as discussed above. Withdrawal of the rejections of claims 8 and 10 under 35 USC §103(a) is respectfully requested (the rejection of claim 15 has been rendered moot by the cancellation of claim 15).

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

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